

Remarks

Upon entry of the foregoing amendment, claims 1-26 are pending in the application, with 1, 8, 13, 14, 21, and 26 being the independent claims. Claims 8 and 13 are each sought to be amended to delete an extraneous “and”. Claims 14 and 26 are each sought to be amended to include a missing “and”. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 103

The current Office Action states on page 2 that claims 1-6, 8-11, 13-19, 21-24, and 26 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Pat. No. 6,483,932 B1 to Martinez *et al.* (hereinafter, “Martinez”) in view of U.S. Pat. Appl. Pub. No. 2003/0123714 A1 to O’Gorman *et al.* (hereinafter, “O’Gorman”). Applicant respectfully disagrees and traverses this rejection.

The Office Action states that Martinez discloses the steps of claim 1, except for the combining step as a function of roll speed. It further states that O’Gorman discloses a fingerprint image combining step that includes “at least partially blending pixel data in successive frames as a function of swipe speed of the finger.” Applicant disagrees with this assertion. O’Gorman does not disclose combining images in a way that is a function of roll (or even of swipe) speed. O’Gorman discloses using image correlation on a frame-by-frame basis to find the location of overlap. O’Gorman does not use swipe

speed to do this. According to O’Gorman, swipe speed does not matter as long as at least one image slice overlaps another. (See paragraph [0040], last sentence, and paragraph [0056], last sentence, for example.) In fact, O’Gorman states in paragraph [0037] that “embodiments of the methods of the present invention operate independent of swipe speed.” This statement alone appears to teach away from the present invention. Although O’Gorman’s disclosure discusses briefly that swipe speed variation is detectable using the methods disclosed (see paragraph [0087], for example), it does not use swipe speed in its reconstruction of print images.

For at least the reason discussed above, Applicant believes that independent claim 1, and the claims that depend therefrom (claims 2-7), are allowable. The feature of blending as a function of roll speed is also found in independent claims 8, 14, and 21. Therefore, claims 8, 14, and 21, and the claims that depend therefrom (claims 9-12, 15-20, and 22-25), are also believed to be allowable. Thus, Applicant respectfully requests that the rejection of these claims be reconsidered and withdrawn.

Independent claims 13 and 26 include a feature of blending that is a function of a “relative change in position of the finger” between frames. This “relative change in position of the finger” is a definition of “roll speed” as defined in the specification (see paragraph [0043], where it states that roll speed can be defined as “the number of pixels a rolling finger moves between two subsequent video frames.”). Therefore, for at least the same reason claim 1 is allowable (as discussed above), Applicant believes claims 13 and 26 to be allowable. Thus, Applicant respectfully requests that the rejection of these claims be reconsidered and withdrawn.

Without acquiescing to the propriety of the rejections of any remaining rejected dependent claims, Applicant would like to comment on the rejections of dependent claims 4, 9, 17, and 22. Claims 4, 9, 17, and 22 each include a feature where blending assigns a variable weight to pixel data from adjacent frames depending on a distance of a pixel from a frame boundary. With regard to these claims, the Office Action states that O’Gorman shows that regions where the fingerprint images are overlapped are discarded because they are repeating pixels to which O’Gorman did not give any weight. Applicant would like to point out that ‘not giving any weight’ (or even a black-and-white notion of either accepting or discarding) and ‘assigning a variable weight’ are significantly different. Therefore, Applicant does not believe the rejection of these claims was warranted.

The Office Action also states that claims 7, 12, 20, and 25 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Martinez, in view of O’Gorman, and further in view of U.S. Pat. No. 5,864,296 to Eric L. Upton (hereinafter, “Upton”). Claims 7, 12, 20, and 25 each depend indirectly from claims 1, 8, 14, and 21, respectively. Upton does not rectify the insufficiencies of Martinez or O’Gorman discussed above. Therefore, claims 7, 12, 20, and 25 should each be allowable for depending from an allowable base claim. Thus, Applicant respectfully requests that the rejection of claims 7, 12, 20, and 25 be reconsidered and withdrawn.

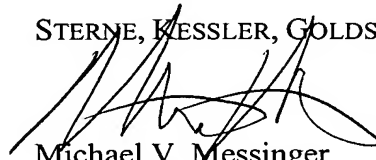
Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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